

ABSTRACT

Signals are provided which allow colors in a wider color range than predetermined standards, which can be handled by apparatus according to such predetermined standards. A primary color converter converts first color signals having primary color points in a wider color range than the primary color points according to BT.709 into second color signals based on the primary colors according to BT.709. A photoelectric transducer converts the second color signals into third color signals according to photoelectric transducer characteristics defined in a numerical range wider than a range from 0 to 1.0 of color signals corresponding to a luminance signal and color difference signals according to BT.709. A color signal converter converts the third color signals into a luminance signal and color difference signals. A corrector incorporated in the color signal converter corrects the color difference signals into color difference signals.